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DEPARTMENT OF NATURAL RESOURCES

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Executive Director

Division of Oil, Gas and Mining

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7276

April 26, 2016

Robert Hicken
Mountain Valley Stone, Inc.
2276 South Daniels Road
Heber City, Utah 84032

Subject: Second Review of Notice of Intention to Commence Large Mining Operations, Mountain Valley Stone, Inc., Brown's Canyon Quarry, M/043/0019, Summit County, Utah

Dear Mr. Hicken:

The Division of Oil, Gas and Mining has reviewed the referenced amended Notice of Intention to Commence Large Mining Operations (NOI) which was received March 18, 2016. The attached comments need to be addressed before tentative approval may be granted.

Please submit your response to this review by May 18, 2016. The Division will not approve further increases to the disturbed area until this NOI is approved.

The Division will suspend further review until your response to this letter is received. Please contact Leslie Heppler at 801-538-5257 or me at 801-538-5261 if you have questions regarding the review. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: lah: vs

Attachment: Review

cc: Stephen Allen, BLM SL FO (SAllen@blm.gov)
Army Corps of Engineers
Leah Ann Lamb, Division of Water Quality

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**Initial REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**Mountain Valley Stone
Browns Canyon Quarry**

**M/043/0019
April 25, 2016**

General Comments:

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	General	The Notice should be formatted to easily incorporate additional revisions and amendments.	lah	
2	General	The Division may have additional comments based on the responses to this review.	lah	
3	General	The text discusses areas by lot numbers, but the maps refer to phase numbers. Please be consistent and use the phase numbers throughout the text and all maps.	lah	
4	Appendix E	<i>Previous Comment - The Corps of Engineers preliminary determination has been provided, but the Division would like to know if an approved determination has been made yet.</i>	mpb	
		New Comment - Plans may need modification pending the decision from the Corps of Engineers.	mpb	
5	Appendix I	<i>Previous Comment - Appendix I: The recommendations in the geotech report are a snapshot in time and need to be consistent with the text. Figure 7 has been modified and needs to be corrected.</i>	lah	
		New Comment – Section 109.4 of the text needs to refer to the geotechnical report. The text should note that the report was for slope conditions in June 2015. In addition, the text should note when any of the geotechnical properties of the rock or the phreatic surface changes, the stability will be reviewed and the operator will maintain an adequate factor of safety.	lah	

R647-4-104 – Operator Information and Surface and Mineral Ownership

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
6	Page 9	<i>Previous Comment - BLM had mineral rights on a portion of the land shown on Figure 2; this is inconsistent with page 9. Please provide a separate map showing mineral rights ownership (versus the surface rights).</i>	lah	
		New Comment – Please see the September 23, 2002, BLM submittal to OGM for M/043/0012 on the Division web page, www.ogm.utah.gov .	lah	

R647-4-105 - Maps, Drawings & Photographs

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
7	Figure 4a	All mining disturbance needs to be included as per R-647-1-106, as the pale orange color of phase 1.	lah	
8	Figure 4a	Include acreages of Phases 1, 2a, 2b, and 3.	lah	
9	Figure 5	Section B-B shows 2H:1V slopes; Figure 5 notes natural grade. Please be consistent. The note on Figure 5 should say, "Backfill to a minimum slope angle of 2H:1V."	lah	
10	Figure 4a, 5, 5a	Show the location of the wetland/waterways over Lost Creek on Figures 4a, 5, 5a, as shown on Figure 7.	lah	
11	Figure 7	Please add directional flow arrows to the map.	mpb	
12	Figure 7b	Please correct location of the orange line to match the disturbance on the base map air photo.	lah	
13	Figure 9	Please show the location of the geologic cross section, as a line on the geologic map.	lah	
14		New Comment: The reported maximum mining depth of 6,420' is not consistent with the maximum depth elevations of the North Pit and South Pit excavations shown on Figure 6a and Figure 6b.	aa	

R647-4-106 - Operation Plan

106.1

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
15	Page 13 Para 1	Text notes Figure 3 is a USGS topographic map, but Figure 3 is an air photo base with topographic contour lines. lease correct the typo.	lah	

106.3 - Estimated acreages disturbed, reclaimed, annually

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
16	Page 16	As noted above, Tables 1 and 2 should refer to the mine phases versus the lot numbers. In addition on Table 1, please include explain the difference between the 61 acres total and the 37 acre total.	lah	
17	Page 14	<i>Previous Comment - Table 1 is labeled as "...and over the life of the mine" but the table only shows the current disturbance. Please change the title of Table 1. Please include a table with the reclaimed acres or state in the text that no reclamation has begun and estimate the year it is anticipated to begin.</i>	lah	
	Page 16 or 17	New Comment – Please include a table or verbiage in the text regarding the estimated annual reclaimed area. The totals for all should add up and be consistent.	lah	

106.8 - Depth to groundwater, extent of overburden, geology

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
18		<p><i>Previous Comment - The operator mentions seasonal waterways in this section. What are the seasonal waterways? Lost Creek? Please provide clarification by describing the water bodies in the region. Address any perennial streams, ephemeral streams, any springs and seeps in the permit area and the surrounding vicinity. Not addressed</i></p> <p>Additional Comment - Please map the location of the observed seep located on lot 38 on Figures 3, 4, 4a, and gives seeps approximate elevation.</p>	aa	
19		Additional Comment: Any mis-mapped water rights should also be noted on the legend on Figure 7b.	aa	

106.10 - Amounts of material moved (including ore, waste, topsoil, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
20	Page 20	<p><i>Previous Comment - Please include a chart or table with the amount of material to be moved. Include the volume of topsoil, the volume of decorative stone, engineered material stockpile, and the waste used for backfill. As written the statement notes the deposit continues at depth but doesn't clearly define the operator's intent.</i></p> <p>New Comment – Under section 106.10 include a statement of the estimated amounts of material to be moved. Also include a statement comparing the depth of water to the depth of mining.</p>	lah	
			lah	

R647-4-108 - Hole Plugging Requirements

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
21		<p><i>Previous Comment - Please include costs for plugging the well in the reclamation cost estimate. A determination will be made at the time of reclamation whether the well needs to be plugged and abandoned.</i></p> <p>New comment – Thank you for including the cost to pull the pumps. In addition, include the costs of plugging of the hole (need 3 independent bids). If in the future the well is transferred to Wright/Garff the bond will be returned to the mine operator.</p>	lah & pbb	
			lah	

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

[illegible]

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
25		<p><i>Previous Comment -The northeast corner of the permit area shows a disturbance area that has affected the natural drainage channel that flows into Lost Creek. The proposed mine expansion area is on the west side of the current disturbance. Presumably, no additional mining will take place in this north east area. If this is correct, it should be reclaimed as soon as possible as required by rule R647-4-107.6 and in accordance with the standards in R647-4-111.2.</i></p> <p>New Comment - Statements made regarding the two culverts beneath the new road built in the “thumb” area, as it is referred to, are conflicting. Page 27 states the two 18-inch culverts will be installed in this area at reclamation while page 32 states that road culverts will remain in place until the road is removed.</p>	aa	

109.4 - Slope stability, erosion control, air quality, safety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
26	Page 23	<i>Previous comment - More text is needed regarding slope stability and public safety. The geotechnical report is included as Appendix I, but it is not mentioned in the text. Please refer to the report and include the recommendations of the report.</i>	lah	
	Page 32	New comment – Please refer to Appendix I and Section R647-4-112 regarding slope stability of slope #5 (include max height and max angle). In addition, note that all other slopes will be backfilled to a 2H:1V.	lah	

R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
27	Page 24	<i>Previous comment - Please add additional information on the reclamation of the dump areas. Specifically the slope angles of loose material, such as dumps and fill, must be graded to eliminate erosional hazards and to support the revegetation and the post mining land use. The geotechnical report discusses the slope angle of the fill slopes.</i>	lah	
	Page 34	New comment - Under the highwall section, please refer to slope #5 and Section R647-4-112 . In addition, note that all other temporary highwalls will be backfilled to the 2H:1V slopes shown in cross sections 6a and 6b.	lah	

110.5 - Revegetation planting program

[illegible]

R647-4-112 – Variance

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
29	Page 41	<p>New - Appendix I is the supporting documentation for the request for variance. The variance statement needs to be written, as 2H:1V fill slopes and 45-degree highwalls are within the rules and do not require a variance. The request for variance statement needs to concentrate on phase 1 slope #5 and the 53-degree slope angle. In addition, the maximum height of the highwall to remain at 53 degrees needs to added to the request for variance.</p> <p>New - In addition, the slope angle of the other phases have not been addressed. Either commit in the NOI to maintain highwalls at less than 45 degrees and fill slopes less than 2H:1V in the future phases or commit to provide a geotechnical report signed and stamped by the engineer of record prior to excavation greater and 20 feet in depth from the original ground surface.</p>	lah	